

**ABSTRACT OF THE DISCLOSURE**

An apparatus for displaying video output with dynamically adjustable drop rate to control playback quality. The inventive apparatus includes a playback engine, a pre-fetch engine, a rendering engine, and a drawing engine. The playback engine sends a pre-fetch requirement and a playback requirement. The pre-fetch engine receives the pre-fetch requirement, obtains frame data according to the pre-fetch requirement, and stores it in a pre-fetch buffer. The pre-fetch engine also adjusts the drop rate of related conditions of the frame data. The rendering engine obtains frame data, decodes, and filters the frame data. The drawing engine outputs the frame data.